

What is claimed is:

1. A method of inhibiting neuronal cell death, comprising contacting an HIV-1-exposed neuronal cell with an apoptosis-inhibitory amount of erythropoietin polypeptide, said neuronal cell having been exposed to an HIV-1 virus or protein thereof.
2. The method of claim 1, wherein the amount of neuronal cell death in a neuronal tissue is reduced in the presence of said erythropoietin compared to in its absence.
3. The method of claim 2, wherein neuronal cell death is reduced by 10% in the presence of said erythropoietin compared to in its absence.
4. The method of claim 2, wherein neuronal cell death is reduced by 50% in the presence of said erythropoietin compared to in its absence.
5. The method of claim 2, wherein neuronal cell death is reduced by 100% in the presence of said erythropoietin compared to in its absence.
6. The method of claim 2, wherein neuronal cell death is reduced by 200% in the presence of said erythropoietin compared to in its absence.
7. The method of claim 1, further comprising contacting said neuronal cells with an erythropoietin receptor polypeptide.
8. A method of inhibiting neuronal cell death, comprising preferentially contacting a neuronal tissue with an apoptosis-inhibitory amount of an erythropoietin polypeptide.
9. The method of claim 8, wherein said erythropoietin is administered intranasally.
10. The method of claim 8, wherein said erythropoietin is administered intrathecally.
11. The method of claim 8, further comprising contacting said neuronal tissue with an erythropoietin receptor polypeptide.
12. A method of reducing a symptom of a neurological disorder, the method comprising identifying an individual suffering from an infectious disease-associated neuropathy and administering to the individual a therapeutically effective amount of erythropoietin, wherein said infectious disease is HIV-1 infection.
13. The method of claim 12, wherein the neurological disorder is selected from the group consisting of HIV-associated dementia (HAD), minor cognitive/motor disorder (MCMD), neuropathic pain associated with HAD, or neuropathic pain from other causes.
14. The method of claim 12, wherein said individual is a human male.
15. The method of claim 12, wherein said individual is a non-lactating human female.

16. The method of claim 12, wherein the therapeutically effective amount of erythropoietin is between about 1 U/kg/day and 2000 U/kg/day.
17. The method of claim 12, wherein the therapeutically effective amount of soluble erythropoietin is between about 100 U/kg/day and 1500 U/kg/day.
18. The method of claim 12, wherein the therapeutically effective amount of erythropoietin is between about 1000 U/kg/day and 1250 U/kg/day.
19. The method of claim 12, wherein the erythropoietin is administered intranasally.
20. The method of claim 12, wherein the erythropoietin is administered intravenously.
21. The method of claim 12, further comprising administering to the individual a therapeutically effective amount of a soluble erythropoietin receptor.
22. The method of claim 21, wherein the therapeutically effective amount of the soluble erythropoietin receptor is between about 1 U/kg/day and 2000 U/kg/day.
23. The method of claim 21, wherein the therapeutically effective amount of the soluble erythropoietin receptor is between about 100 U/kg/day and 1500 U/kg/day.
24. The method of claim 21, wherein the therapeutically effective amount of the soluble erythropoietin receptor is between about 1000 U/kg/day and 1250 U/kg/day.
25. The method of claim 21, wherein the soluble erythropoietin receptor is administered intranasally.
26. The method of claim 21, wherein the soluble erythropoietin receptor is administered intravenously.
27. The method of claim 21, wherein the soluble erythropoietin receptor increases the stability of erythropoietin when both are administered to a patient.
28. A method of reducing a symptom of a neurological disorder, the method comprising identifying an individual suffering from a chronic neuropathy and administering to the individual a therapeutically effective amount of erythropoietin.
29. The method of claim 28, wherein said neuropathy is diabetes-associated neuropathy or neuropathic pain.
30. The method of claim 28, wherein said individual is a human male.
31. The method of claim 28, wherein said individual is a non-lactating human female.
32. The method of claim 28, wherein the therapeutically effective amount of erythropoietin is between about 1 U/kg/day and 2000 U/kg/day.
33. The method of claim 28, wherein the therapeutically effective amount of soluble erythropoietin is between about 100 U/kg/day and 1500 U/kg/day.

34. The method of claim 28, wherein the therapeutically effective amount of erythropoietin is between about 1000 U/kg/day and 1250 U/kg/day.
35. The method of claim 28, wherein the erythropoietin is administered intranasally.
36. The method of claim 28, wherein the erythropoietin is administered intravenously.
37. The method of claim 28, further comprising administering to the individual a therapeutically effective amount of a soluble erythropoietin receptor.
38. The method of claim 37, wherein the therapeutically effective amount of the soluble erythropoietin receptor is between about 1 U/kg/day and 2000 U/kg/day.
39. The method of claim 37, wherein the therapeutically effective amount of the soluble erythropoietin receptor is between about 100 U/kg/day and 1500 U/kg/day.
40. The method of claim 37, wherein the therapeutically effective amount of the soluble erythropoietin receptor is between about 1000 U/kg/day and 1250 U/kg/day.
41. The method of claim 37, wherein the soluble erythropoietin receptor is administered intranasally.
42. The method of claim 37, wherein the soluble erythropoietin receptor is administered intravenously.
43. The method of claim 37, wherein the soluble erythropoietin receptor increases the stability of erythropoietin when both are administered to a patient.
44. A pharmaceutical composition comprising erythropoietin, a soluble erythropoietin receptor, and a pharmaceutically acceptable carrier.
45. A kit comprising in one or more containers, the pharmaceutical composition of claim 44.